

Attachment 1

THE FOLLOWING SAMPLING AND TESTING REQUIREMENTS ARE *MINIMUM* REQUIREMENTS. SPECIFIC SAMPLING AND TESTING REQUIREMENTS MUST BE INCLUDED IN THE CONTRACTOR'S QUALITY CONTROL PLAN (CLAUSE C19.07, *TESTING OF PETROLEUM PRODUCTS*) WHICH MUST BE ACCEPTABLE TO THE U.S. GOVERNMENT.

TESTING REQUIREMENTS: MIL-DTL-83133E, (1 APR 99) GRADE **JP-8**

LOCATION OF STOCK TESTS 1. All level sample from **each tank** on a) Workmanship, Finish, & Appearance vessel prior to discharge or after loading. b) Color, Visual c) API Gravity or Density d) Flash Point (Flash Point tests run on vessel composite samples). 2. **Composite Samples:** a) Workmanship, Finish, & Appearance b) Color, Visual c) API Gravity or Density d) Flash Point e) Particulate Matter f) Distillation g) Copper Strip Corrosion h) Freezing Point i) Existent Gum i) Water Reaction k) Fuel Systems Icing Inhibitor (if present) 1) Filtration Time m) Water Separation Index Modified (if fuel does not contain conductivity additive.) n) Conductivity

NOTE 1: Tanker/Barge Composite Samples **prior to Discharge**:

<u>Multi-Product</u>: Discharge of product may commence after conformance with Paragraph 1 tests; Paragraph 2 tests will be completed prior to or during discharge.

<u>Single-Product</u>: Discharge of product may commence after conformance with Paragraph 1 tests; Paragraph 2 tests will be performed on the retained sample if receiving tanks are found to be off-specification.

NOTE 2: Tanker/Barge Composite Samples **after Loading**:

Vessel may sail after completion of Paragraph 1 tests; Paragraph 2 tests will be completed *prior to* vessel arrival at destination.

LOCATION OF STOCK

- 3. One gallon **line sample** taken at dock header at one hour, midpoint, and one hour prior to completion of discharge.
- 4. For **split cargo** discharges where one product is Jet A-1 and the other product is JP-4, AVGAS, or MOGAS. A dock header sample will be taken during the Jet A-1 discharge one half-hour after the start of discharge and hourly thereafter.
- 5. Composite Sample from **storage tanks** after receipt.
- 6. **Line sample** during pipeline movement or Line sample from fillstand prior to start of loading.
- 7. Composite sample of loaded tank trucks/tank cars.
- 8. **Interface mixtures** from pipeline for injection.
- 9. Composite sample from storage not receiving fuel from an outside source in previous six months).

TESTS

- e) Particulate Matter on each sample.
- d) Flash Point on each sample.

Same as Paragraph 2, above, plus:

o) Thermal Stability on tanker receipts.

Same as Paragraph 1, above.

Same as Paragraph 1, above.

Same as Paragraph 2, above, plus:

- o) Thermal Stability
- a) Workmanship, Finish, & Appearance
- b) Color, Saybolt
- c) API Gravity or Density
- d) Flash Point
- e) Particulate Matter
- f) Distillation
- g) Copper Strip Corrosion
- h) Freezing Point
- i) Existent Gum
- j) Water Reaction
- k) Fuel Systems Icing Inhibitor (if present)
- 1) Filtration Time
- m) Water Separation Index Modified (if fuel does not contain conductivity additive
- n) Conductivity
- o) Thermal Stability
- p) Acid Number

	LOCATION OF STOCK	TESTS
10.	Individual Tests as directed by the cognizant Quality Office.	All tests listed in Paragraph 9, above,
	<i>5</i>	q) Aromatics
		r) Olefins
		s) Mercaptan Sulfur/Doctor Test
		t) Total Sulfur
		u) Hydrogen Content
		v) Net Heat of Combustion (MJ/kg):

above, plus:

w)Luminometer, or Smoke Point, or Smoke Point/Naphthalenes

x) Viscosity at -20°C y) Calculated Cetane Index z) Sulfides in Water (Clause E34)

ALL TEST METHODS TO BE AS SPECIFIED IN SPECIFICATION ASTM-D-1655 (LATEST REVISION), GRADE Jet A-1, EXCEPT FOR SULFIDES IN WATER WHICH SHALL BE PERFORMED IN ACCORDANCE WITH CLAUSE E34 (TESTS FOR SULFIDES IN WATER).